



**CLARK UNIVERSITY
DEPARTMENT OF PHYSICS
COLLOQUIUM**



**Professor James Bird
Department of Mechanical Engineering
Boston University**

**“Exploring droplet breakup and rubber band
recoil through self-similar dynamics”**

Abstract: This talk highlights two lines of research within our group: the breakup of a jet of liquid into droplets and the shape of a rubber band fired from a thumb. Although the potential applications for these systems are quite distinct, both share an underlying dynamic dictated by inertia and tension. In the absence of a dominant lengthscale, both systems also illustrate self-similar dynamics, which can be investigated experimentally, numerically, and analytically. The combination of these approaches can lead to new insight into the underlying mechanics.

Biography: James Bird is an Assistant Professor in the Department of Mechanical Engineering at Boston University. He received his B.S. from Brown University and his Ph.D. from Harvard University, after which he completed an NSF Mathematical Science Postdoctoral Fellowship at MIT. His research focuses on interfacial fluid dynamics with an emphasis on the dynamics of drops and bubbles. He is the recipient of a Fulbright Fellowship (2004), an NSF CAREER award (2014), and an ONR YIP award (2016).

Wednesday, March 13, 2019

12:00 pm - Room S-122, Sackler Sciences Center

Coffee/cookies in the physics common area prior to the talk